AMERICAN MUSEUM NOVITATES

Published by

Number 1025 THE AMERICAN MUSEUM OF NATURAL HISTORY April 12, 1939

New York City

RECORDS AND DESCRIPTIONS OF AFRICAN SYRPHIDAE.—III (DIPTERA)

BY C. H. CURRAN

This part of the records and descriptions covers the genera from the Cheilosiinae to Eristalinae, including almost half of these latter.

RHINGIA SCOPOLI

The members of this genus are readily recognized by the snout-like production of the oral margin together with the position of the anterior crossvein, this being situated at the basal fourth of the discal cell. There are a number of closely related species in Africa, most of them of a metallic bluish or greenish color.

TABLE OF SPECIES[1]

1.—Mesonotum and scutellum wholly reddish or yellowish....2.
Mesonotum with brown vittae or much more extensively dark colored....3.
2.—Front of female black; black abdominal fasciae wide....*mecyana* Speiser.
Front of female yellow; black fasciae narrow....*lutea* Bezzi.
3.—Abdomen wholly dark colored beyond the second segment....6.
Third and usually the fourth segments largely pale....4.
4.—Disc of the mesonotum metallic bluish...5.
Mesonotum with three shining brown and four brownish yellow pollinose vittae....*trivittata* Curran.
5.—Scutellum metallic blue....*semicaerulea* Austen.
Scuttellum yellowish....*pellucens* Bezzi.
6.—Femora black or brown....9.
Femora yellowish....7.
7.—Abdomen metallic green or blue, the base pale....8.
Abdomen black, first segment yellowish, the fourth bluish on the posterior border....*coerulea* Bezzi.
8.—Antennal prominence blackish above....*congensis*, new species.
Antennal prominence reddish above....*caerulescens* Loew.
9.—Snout blackish or metallic, sometimes reddish along the oral margin....10.
Snout reddish, at most the apical fourth or a slender dorsal vitta black, antennae red....13.
10.—Long hair on the sides of the second abdominal segment mostly or wholly black....11.
Hair on second segment wholly yellow....*cyanopora* Speiser.
11.—Anterior four tibiae yellow; third antennal segment longer than wide....*pycnosoma* Bezzi.
All the tibiae blackish except basally..12.
12.—Third antennal segment reddish, orbicular; second tarsal segment reddish....*pulcherrima* Bezzi.
Third antennal segment conspicuously longer than wide; second tarsal segment blackish....*uniformis*, new species.
13.—Eyes of male broadly contiguous; anterior four tibiae yellowish....*fuscipes* Bezzi.
Eyes of male very broadly separated; anterior tibiae mostly black or brown....*cuthbertsoni*, new species.

[1] *R. orthoneurina* Speiser is omitted.

Rhingia mecyana Speiser

SPEISER, 1910, Kil.-Meru Exp., X, p. 121.

Male, Mt. Ruwenzori, Congo, April 31, 1914 (J. Bequaert).

Rhingia trivittata Curran

CURRAN, 1929, Amer. Mus. Novitates, No. 340, p. 11.

The types were collected in the Belgian Congo by Dr. J. Bequaert. There is a female before me from Vumba Mountains, Southern Rhodesia, March, 1935 (A. Cuthbertson). This specimen agrees with the male. The front is black, thinly brown pollinose, the pollen thicker and paler anteriorly, the orbits oposite the antennae with gray pollen; frontal pile wholly black.

Rhingia caerulescens Loew

LOEW, 1857, Ofvers. Kongl. Vet. Akad. Forh., XIV, p. 377.

Male and female, Umtali, S Rhodesia, April, 1929 (A. Cuthbertson); male, Salisbury, S. Rhodesia (F. L. Snow).

Rhingia fuscipes Bezzi

Rhingia caerulescens fuscipes Bezzi, 1915, Syrph. Ethiopian Reg., p. 54.

Male, Mt. Ruwenzori, Congo, April 16, 1914; male, Moala, Liberia, October 31, 1926 (J. Bequaert).

This species, if I have correctly identified it, is quite distinct from *caerulescens*, differing not only in the color of the legs, but in having the Mesonotum black haired, the upper eye facets strongly enlarged, etc.

Rhingia cyanoprora Speiser

Speiser, 1910, Kil.-Meru Exp., X, p. 122.

Two males and one female from N. W. Tanganyika, 1910 (Grauer).

Rhingia uniformis, new species

Metallic blue, the middle tarsi yellow basally. Length, 7.5 to 8.5 mm.

Male.—Head black, sometimes more or less bluish. Vertical triangle and upper occiput black-haired, the lower occiput and cheeks pale yellow pilose; posterior and facial orbits cinereous pollinose, the cheeks posteriorly and the upper half of the face with very thin pale pollen; snout somewhat ferruginous or castaneous basally, the oral margin broadly black. Antennae black or brown, the third segment oval, sharply rounded apically. Eyes contiguous for a long distance.

Thorax metallic blue, with violaceous reflections, the humeri broadly yellow and sericeous pollinose above. Pile wholly black or brown, the ventral scutellar fringe yellow. Mesonotum with the median third brown pollinose on more than the anterior half.

Legs black or brown, the tips of the femora and the basal segment of the middle tarsi yellowish; bases of the tibiae very narrowly luteous or reddish. Pile black.

Wings cinereous hyaline or with brownish tinge; stigma luteous. Squamae white, with brown border and fringe. Halteres yellow.

Abdomen metallic blue, the first segment and disc of the second bronze-brown, the broad apices of the second and third segments incompletely blackish. Pile yellowish, the sides of the second segment very broadly black haired. Venter brownish or black, thinly brownish yellow pollinose.

Female.—Front metallic blue and violaceous, the face blue-black; lower orbits and sides of the frontal depression with brownish yellow pollen; pile black. Middle tarsi brownish basally. Abdomen wholly black pilose beyond the middle of the second segment.

Types.—Holotype, male, Masisi, Congo, December, 1914 (J. Bequaert). Allotype, female, Burunga, Congo (Bequaert). Paratype, male, Uganda, December, 1926.

This species is readily distinguished from *pulcherrima* Bezzi by the more elongate, blackish antennae and the color of the pile.

Rhingia congensis, new species

Metallic blue and reddish yellow; front of female wholly dark. Length, 8.5 mm.

Female.—Front steel-blue, dark brown in front of the depression, with a broad band of brownish yellow pollen immediately above the depression; pile black. Occiput black in ground color, yellowish pollinose and pilose, the upper occiput with black pile. Cheeks and face reddish, the latter with brownish yellow pollen above. Antennae reddish yellow, the arista brown on the apical half; third segment conspicuously longer than wide.

Thorax metallic blue, the pleura with some reddish areas in front and behind; humeri yellowish, the posterior calli reddish with bluish reflections above. Pile very short and black, pale on the pleura.

Legs rusty reddish yellow, the tarsi slightly darkened apically. Hair black, yellowish on the posterior femora except apically.

Wings hyaline; stigma luteous. Squamae dull yellowish, partly tinged with brown, the fringe brownish yellow. Halteres yellow.

Basal abdominal segment and a large discal basal spot, convex behind, on the second segment yellowish, the remainder of the abdomen metallic blue, the apices of the segments broadly violaceous. Pile black, yellow on the first and basal half of the second segment. Venter reddish.

Holotype.—Female, Garamba, Belgian Congo, June–July, 1912 (Lang and Chapin).

Rhingia pulcherrima Bezzi

Bezzi, 1908, Boll. Soc. Ent., Firenze, XXXIX, p. 30.

I have not seen this species, described from Eritrea. It is known only from a single female and is undoubtedly very similar to *cuthbertsoni*. The male may be found to have the eyes dichoptic.

Rhingia cuthbertsoni, new species

Metallic blue, the snout reddish; eyes of male very widely separated. Length, 5.5 to 7 mm.

Male.—Front metallic blue-green, as wide above as at the middle of the face, narrowest at the anterior third, thence gently widening anteriorly; pile black, yellow in front of the depression and at the vertex. Occiput thinly cinereous pollinose, with yellow pile above and whitish pile below and on the cheeks. Face blue, broadly cinereous pollinose above, the snout and anterior half of the cheeks yellowish, the broad apex of the snout and sometimes a narrow line above black. Antennae bright orange, the basal segment shining black, the third almost orbicu-

lar, only slightly longer than wide; arista reddish brown.

Thorax metallic blue with violaceous reflections, the pile short and yellowish; mesonotum with a broad band of black pile behind the suture and along the middle line. Scutellum with short black pile but there are a few pale hairs intermixed and the ventral fringe is yellow.

Legs black; tips of the femora, basal third or less of the tibiae, basal two segments of the anterior four and the second segment of the posterior tarsi yellow. Pile yellowish.

Wings hyaline. Stigma pale luteous. Squamae and fringe white. Halteres reddish yellow.

Abdomen metallic blue, with violaceous reflections, the first segment green. Second and third segments with broad apical fascia and median vitta opaque black, the fourth with a narrow, incomplete, opaque median stripe. Pile very short and yellowish. Venter blue with moderately thick cinereous yellow pollen.

TYPES.—Holotype, male, and paratype, male, Salisbury, Southern Rhodesia, January 30 and February 7, 1935 (A. Cuthertson).

This is not a true *Rhingia* and a new genus should possibly be erected for it. However, since the female will probably be almost impossible to distinguish from the same sex of *Rhingia* it is advisable to retain it in this genus. The male of *R. pulcherrima* Bezzi may also have dichoptic eyes but this species has the abdomen yellow basally and the snout is black except below.

Tropidea dicentria Speiser

SPEISER, 1913, Deutsch. Ent. Zeitschr., p. 143.

Female, Yaba, S. Nigeria, May 18, 1913 (Dr. J. W. Scott-Macfie).

The single specimen received from the British Museum of Natural History agrees with Speiser's description except that the mesonotum has the posterior border and posterior calli yellowish. The usual triangular plate on the apex of the posterior femora is unique in that it has a deep emargination on the apical half, the result being that a strong spur is formed by the basal section. The genus *Tropidea* shows some variation in the shape of the face but this is of no more than specific importance.

Tropidea longus Walker

Helophilus longus WALKER, 1849, List Dipt. Brit. Mus., III, p. 604.

I have not seen this species but believe it comes here as it is, according to Miss Aubertin, related to the specimen recorded above. However, it is a male and must be very close to, if not identical with *dicentria* Speiser since Walker states that the posterior femora bear two strong teeth apically. According to Miss Aubertin there are two processes on the sternopleura in front of the posterior coxae. These probably represent a sexual character and not a specific difference. Walker's description seems to indicate that his specimen (a male) and the female described by Speiser belong to the same species as neither of them mention the yellow prescutellar fascia.

SYRITTA ST. FARGEAU AND SERVILLE

The identity of the African species belonging to this genus is very difficult. There is considerable variation in the color of the posterior femora in the same species, the hairs on the under surface of this are liable to break off and the spines are slightly variable. Several species having the spurious vein colorless have been described, but all of these may be the same as *flaviventris* Macquart, unless *aculeipes* Schiner has been correctly determined by Bezzi. It seems possible that *austeni* Bezzi is the same—it is the only species I have seen in which the hind tibia is acutely produced and the tubercular swelling is present on the tibia as described by Schiner. Schiner described the stigma as colorless. In *austeni* it is much paler than in most of the other species but is not clear as in *flaviventris*. The color of the antennae, shape of the fifth sternite, enlargement of the tarsi and the shape of the pale abdominal markings (within limits) are other characters available. The male genitalia will no doubt prove of value in separating species but I do not have sufficient material to make a thorough study at the present time.

The following key separates the forms I have seen, or that seem to be distinct. *S. lanipes* Bezzi is not included but it may be readily recognized by the thick hair on the ventral surface of the posterior tibiae.

TABLE OF SPECIES

1.—Spurious vein colorless, indistinct.....2.
Spurious vein darkened, conspicuous.....3.

2.—Posterior femora with two or three spines between the basal spur and femoral plate ..... *flaviventris* Macquart.
Posterior femora without such spines..... ..... *aculeipes* Schiner.
3.—Posterior femora without basal spur.....4.
Posterior femora with strong basal spur below..... *bulbus* Walker.
4.—Anterior four femora wholly reddish.....5.
Anterior four femora black on basal half... ..... *nigrofemorata* Macquart.
5.—Third antennal segment decidedly less than twice as long as wide; posterior femora usually with black on the basal half....6.
Third antennal segment fully twice as long as wide; posterior femora usually dark reddish on the basal two-thirds, the apical third black, their tibiae with a strong tubercle beyond the middle in the male.. ..... *austeni* Bezzi.
6.—Posterior femora with broad, reddish median band, at least on lower half.....7.
Posterior femora black, the base more or less reddish..... *abyssinica* Rondani.
7.—Posterior femora with long, isolated pale hairs below.....8.
Posterior femora without such hairs, sometimes pilose beneath.....9.
8.—Pale fascia on third abdominal segment interrupted in the middle except at the base (*subtilis* Becker).... *fasciata* Wiedemann
Pale fascia entire and very broad..... ..... *latitarsata* Macquart.
9.—Posterior femora with rather long, soft hair ventrally..... *hirta*, new species.
Posterior femora without such hair.....10.
10.—Spines on basal half of the posterior femora well developed and arising from distinct tubercles.....11.
Spines weak and not arising from tubercles, or absent.....13.
11.—Male..... *fasciata* Wiedemann.
Females.....12.
12.—Yellow fascia on third abdominal segment occupying more than the basal two-thirds of the segment.. *stigmatica* Loew?
Yellow fascia occupying much less than the basal half of the third abdominal segment ..... *fasciata* Wiedemann.
13.—Basal segment of the front tarsus distinctly broadened..... *pleuritica* Speiser.
Basal segment of the front tarsus not widened..... *stigmatica* Loew.

Syritta flaviventris Macquart

Macquart, 1842, 'Dipt. Exot.,' II, part 2, p. 75.
Syritta spinigera Loew, 1848, Stettin. Ent. Zeitg., IX, p. 331.

Male, Cape Town, Cape Province, April 4, 1920 (Michel Bequaert); four males, Lake Christie, S. E. Africa (Janson); two males, two females, Lourenco Marques, 1913, 1914 (H. A. Junod); male, Waterfall, Boven, Transvaal, 3800 ft.; male and female, Botshabelo, near Middleburg, Transvaal, 4000 ft. (H. A. Junod); two males, Johannesburg, April, May, 1906; female, Chirinda Forest, Southern Rhodesia, November, 1930; female, Bindura, Southern Rhodesia, March, 1932; two females, Salisbury, Southern Rhodesia, January, 1929, and January 19, 1935 (A. Cuthbertson).

Syritta austeni Bezzi

Bezzi, 1915, Syrph. Ethiopian Reg., p. 107.
Curran, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 58.

Five females, Gbanga, Liberia, September, 1926 (J. Bequaert).

Syritta abyssinica Rondani

Rondani, 1873, Ann. Mus. Civ. Genova, IV, p. 282.

Female, Tshumbiri, Congo, December 14, 1926; male, Memeh Town, Liberia, August 29, 1926 (J. Bequaert).

Bezzi has placed this species as a synonym of *fasciata* Wiedemann, but the genitalia are different; the cerci are triangular, while in *fasciata* they are elongate and rounded apically.

Syritta stigmatica Loew

Loew, 1857, Ofvers. Kongl. Vet. Akad. Forh., XIV, p. 377.

Eight males, Johannesburg, 1906 (J. P. Cregoe); male, Botshabelo, near Middleburg, Transvaal, 4000 ft. (H. A. Junod); female, Lourenco Marques, April–July, 1914 (H. A. Junod); female, Umtali District, November 2, 1936 (P. A. Sheppard).

Syritta fasciata Wiedemann

Xylota fasciata Wiedemann, Aussereur. Zweifl. Ins., II, p. 103.

Two specimens of each sex from East London, S. Africa, May and June, 1922 (H. K. Munro).

Syritta bulbus Walker

Walker, 1849, List Dipt. Brit. Mus., III, p. 553.
Syritta bulbulus Speiser, 1914, Jahrb. Ver. Nassau, LXVI, p. 137.

A single specimen from Stanleyville, Congo, is evidently this species. The pos-

terior femora are reddish with the apical third black.

Syritta latitarsata Macquart

Macquart, 1842, Dipt. Exot., II, part 2, p. 75 (f.).

Seven males from Lourenco Marques, 1914 (H. A. Junod).

I refer these specimens here with little doubt as they agree well with Macquart's description although they do not have the posterior tarsi as much widened as shown in the figure. Bezzi included this species under *fasciata* Wiedemann but the two are quite distinct.

Syritta hirta, new species

Antennae reddish yellow, the third segment broadly darkened above; hind femora with long, fine hairs below. Length, 8 to 8.5 mm.

Male.—Face, frontal triangle and oral margin reddish yellow in ground color, thickly pale yellow pollinose, the sides of the face with pale yellow pile. Vertical triangle shining black, cinereous pollinose on the anterior two-fifths, black pilose. Occiput and cheeks cinereous pollinose, the occiput bare above except for a spot on each side of the vertex, the pile whitish. Antennae reddish yellow, the third segment brownish on upper half or less.

Mesonotum shining black, the humeri and the broad sides in front of the suture reddish in ground color and densely yellow pollinose; pile closely appressed, in one specimen mostly yellow, with a broad, postsutural black band, in the other mostly black, the yellow predominating in front of the suture and immediately in front of the scutellum; scutellum mostly black haired but with pale pile on the margin. Pleura cinereous pollinose, the mesopleura partly or mostly reddish in ground color, the pile yellow, becoming white below.

Coxae brownish, pale pollinose and white pilose. Anterior four legs reddish, the tips of the femora and broad bases of the tibiae yellow. Posterior femora and tibiae brown or castaneous, the femora with broad, complete, median reddish band that extends very broadly to the base on the under side and expands toward the apex dorsally; tibiae with broad, median reddish band that may expand to cover the posterior surface from the middle to the apex; posterior tarsi reddish basally, becoming brown apically. Pile whitish and yellow, long and white on the under surface of the posterior femora, which bear only a half dozen, short, weak bristles on the basal half of the ventral surface; front tarsi not at all widened.

Wings hyaline, the veins brown; stigma luteous. Squamae white, with yellow fringe. Halteres reddish yellow.

First abdominal segment dull blackish, the sides more or less reddish. Second segment reddish yellow, with a broad median vitta that expands basally, but does not reach the side margins, and expands posteriorly to form a broad apical fascia, opaque black; third segment with a very broad median black vitta which expands to cover the posterior fourth of the segment, shining on the anterior third and on the apex, opaque on the disc; fourth segment shining black, the apex more or less reddish, the basal corners with a rather small whitish pollinose triangle on reddish ground. Pile black on the black areas beyond the middle of the second segment, yellow on the yellowish spots and on the lateral margins, or whitish on the sides of the fourth segment. Genitalia shining black, yellowish haired, somewhat pale pollinose below. First and fourth sternites blackish, the median ones reddish yellow; fourth rather strongly longitudinally carinate and with a cluster of long, yellow pile apically in the middle.

Types.—Holotype, male, Monrovia, Liberia (J. Bequaert). Paratype, male, Ibadan, Nigeria.

Chasmomma Bezzi

Bezzi, 1915, Syrph. Ethiopian Reg., p. 102.

The genus contains two described species. A third is before me from the Belgian Congo. The two previously known species have the third vein only moderately curved into the apical cell as shown in Bezzi's figure but in the new species the curvature is strong and there is just an indication of an appendage at its lower or posterior end. In other respects this species closely resembles the genotype, *femoratum* Bezzi.

Table of Species

1.—Anterior four femora yellow . . . . . 2.
All the femora black . . . . . *nigrum* Curran.
2.—Posterior femora black on apical third or less; stigma black . . . . . *femoratum* Bezzi.
Posterior femora black on apical three-fourths; stigma not darker than surrounding area; sides of abdomen reddish . . . . . *lateralis*, new species.

Chasmomma nigrum Curran

Curran, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 58.

Female, Du River Camp No. 3, Liberia, 1926 (J. Bequaert). The type, also a female, came from Stanleyville, Belgian Congo.

Chasmomma femoratum Bezzi

Bezzi, 1915, Syrph. Ethiopian Reg., p. 103(f.).

Described from three specimens from Nigeria.

I have not seen this species but it should be readily recognized from the description and excellent figure. The following species must be closely related but is larger, differently colored and the third vein is much more deeply looped into the apical cell.

Chasmomma lateralis, new species

Black, the sides of the abdomen and legs partly reddish. Length, 12 mm.

FEMALE.—Head black in ground color, the front opaque black on more than the upper half, the lower orbits narrowly silvery pollinose. Lower portion of the front and the large facial tubercle shining, the cheeks shining brown anteriorly. Occiput, face and cheeks silvery white pollinose. Pile black, white on the lower fifth of the occiput, cheeks and face. Antennae brown, the third segment more than twice as long as wide, obtuse apically.

Thorax black; mesonotum with brownish pollen except laterally, with very short black hair and a few scattered yellow hairs; notopleura, posterior calli and pleura yellow pilose, notopleura and pleura cinereous pollinose. Scutellar fringe yellow.

Legs orange, the tarsi, with the exception of the basal segment of the middle pair, blackish; posterior femora moderately swollen, black on apical two-thirds, the apex brownish red; posterior tibiae arcuate, castaneous with yellow base. Pile yellow, partly black on the anterior surface of the posterior femora; hind femora with black bristles below.

Wings light brown, somewhat paler basally; third vein deeply looped into the apical cell. Stigma brownish. Squamae white. Halteres yellow.

Abdomen weakly shining black; first segment brownish; second segment with a triangular median vitta and a broad preapical fascia that is narrowed medianly, its posterior border concave, opaque black; third and fourth segments each with opaque black fascia behind the middle, interrupted in the middle and broadly separated from the lateral margins. Sides of second to fourth segments reddish, more broadly so anteriorly, the apices of the third to fifth segments dull reddish. Pile very short and black, yellowish on the first, basal half of the second and on the broad sides of the fourth and fifth segments. Venter reddish, the base blue-black, thinly pale pollinose.

HOLOTYPE.—Female, Nouvelle Anvers, Congo (J. Bequaert).

MERODON MEIGEN

All of the specimens I have seen from Africa represent undescribed forms. The genus may be recognized by the presence of a process apically on the posterior femora, deeply looped third vein and open marginal cell. The eyes are pilose, holoptic in the males.

TABLE OF SPECIES

1.—Femora reddish yellow basally ..... *edentulus* Macquart.
Femora at most very narrowly or obscurely reddish basally ..... 2.
2.—Mesonotum with four cinereous pollinose vittae that are not connected in any way .. *biarcuata,* new species.
Mesonotum with or without connected pollinose vittae ..... 3.
3.—Second abdominal segment wholly black in ground color; anterior oral margin strongly produced ..... *nasicus* Bezzi.
Second segment partly red; oral margin variable ..... 4.
4.—Antennae black or brown ..... 5.
Antennae reddish or yellowish ..... 6.
5.—Humeri yellow ..... 7.
Humeri black; oral margin strongly projecting ..... *melanocerus* Bezzi.
6.—Abdominal fasciae on middle of segments interrupted in the middle and pale yellow; mesonotum without pollen ..... *planifacies* Bezzi.
Abdominal fasciae entire or practically so and of orange color; mesonotum extensively pollinose .. *cuthbertsoni,* new species.
7.—Anterior oral margin strongly produced .... *multifasciatus,* new species.
Anterior oral margin not produced ..... *stevensoni,* new species.

Merodon edentulus Macquart

MACQUART, 1855, Dipt. Exot., Suppl. V, p. 90.

This can scarcely be a *Merodon* because it is said to have no spur on the posterior femora.

Merodon biarcuata, new species

Black, the abdomen orange on basal half, with two broad, arcuate whitish pollinose fasciae; antennae pale reddish. Length, 13 mm.

FEMALE.—Front moderately wide, shining black above and on the median third, the sides yellow pollinose and pale yellow pilose, the shining portions black pilose. Ocellar triangle slightly longer than wide; vertex with cinereous pollen behind the ocelli. Occiput, cheeks and face cinereous white pollinose and pale yellow pilose; cheeks shining in front. Face rather strongly receding, the oral margin moderately projecting and narrowly shining black. Antennae deep orange; third segment elongate, more than twice as long as wide, sharply rounded on the upper apex; arista brown except basally.

Thorax black, yellow pilose, the pleura cinereous yellow pollinose. Mesonotum with a pair of entire dorsocentral vittae, a median line in front of the suture and a pair of sublateral vittae

cinereous pollinose, the vittae broadly connected anteriorly, the median ones not reaching the scuttelum. Between the roots of the wings there is a broad fascia of black pile that is narrowly interrupted by yellow on the pollinose stripes. Scuttellum wholly pale pollinose.

Coxae and femora black, the trochanters brown or reddish; tips of the femora, the tibiae and tarsi reddish, the bases of the tibiae more or less broadly yellow. Pile yellow. Posterior femora moderately swollen, with low triangular apical plate, the apical spur strong, the basal section with eight small, setigerous teeth.

Wings hyaline, the veins reddish basally; stigmal spot brownish red. Squamae pale yellowish, with yellow fringe. Halteres pale yellow.

First abdominal segment shining black, pale pollinose laterally. Second segment orange; third darker orange, with a large, transverse triangular, metallic black spot on either side posteriorly and with a broad, strongly arched, incomplete white pollinose fascia extending over the middle of the segment and ending a little in front of the posterior margin; fourth segment metallic blackish, with similarly shaped pollinose band but the band lies much closer to the base of the segment and does not extend so close to the lateral margins nor to the posterior margin; fifth segment wholly shining black. Pile deep yellow on the first two segments except for an incomplete, broad, paler yellow; apical band on the second; whitish on the pale pollinose fasciae and on the sides and apex of the fourth segment; pale yellow on the fifth segment except for a large, median triangle extending from the base to near the apex. Venter reddish, becoming brown apically. The ground color beneath the second pollinose fascia is mostly reddish.

HOLOTYPE.—Female, Forest of Namora, near Robot, Morocco.

This species is strongly suggestive of *avidus* Rossi but the black pilose frontal stripe, shape of antennae, shape of process on hind femora, etc., at once distinguishes it.

Merodon cuthbertsoni, new species

Rather small, blackish species, the abdomen and legs partly reddish; oral margin not produced; abdomen with cinereous pollinose fasciae. Length, 8.5 mm.

MALE.—Head greenish black, yellowish pilose, the upper part of the eyes and the vertical triangle black haired; pollen cinereous, the vertical triangle behind the anterior ocellus and a large triangle above the antennae shining black, the face rather thinly pollinose. Eyes touching for a distance less than the length of the ocellar triangle which is distinctly longer than wide. Face strongly receding, gently convex, the oral margin not produced. Antennae brown, the first segment blackish; third segment oval, about one-half longer than wide; arista short, reddish yellow basally.

Thorax greenish black, the dorsum somewhat bronzed; pile reddish yellow, paler on the pleura and scuttellum. Humeri margined with yellow inwardly; posterior calli brownish red. Mesonotum with a medianly interrupted grayish pollinose fascia in front and with a line of pollen along the suture; pleura thinly brownish yellow pollinose.

Coxae, trochanters and femora black, the tips of the latter reddish yellow. Tibiae and tarsi reddish yellow, the anterior four tibiae with broad brownish band beyond the middle, the posterior pair blackish with the base and apex pale. Pile whitish. Process on the posterior femora triangular with a strong apical tooth.

Wings cinereous hyaline, the veins reddish yellow. Squamae white. Halteres yellow.

Abdomen black. Second segment with the lateral margins behind the middle and a small, median triangle toward each side reddish, the disc subopaque. Third segment with the lateral margins and a broadly interrupted median fascia reddish, the fascia cinereous pollinose except laterally. Fourth segment with more than the apical half and a narrow median vitta reddish; behind the gently arched, cinereous yellow median vitta with a short, medianly interrupted shining brownish fascia that tapers laterally. Narrow apex of the second and broad apex of the third segments reddish yellow. Pile yellow basally and laterally, black on the black portions, whitish on the pollinose fasciae. Genitalia shining black, pale pilose.

HOLOTYPE.—Male, Sanyati Valley, Southern Rhodesia, September–October, 1925 (R. H. R. Stevenson).

Merodon stevensoni, new species

Black, the abdomen with reddish yellow markings and with whitish pollinose fascia on yellow ground. Length, 11 mm.

FEMALE.—Head cinereous and cinereous yellow pollinose, the front shining black with the sides broadly pale pollinose on the lower three-fourths; ocellar triangle slightly wider than long. Pile pale yellowish, whitish on the face, brownish on the upper part of the eyes, a band of black across the ocellar triangle. Face strongly receding, the oral margin not produced. Antennae elongate, reddish, the third segment somewhat darker on the upper half, of almost equal width, the apex very obtusely rounded; arista brownish on the apical half.

Thorax aeneous, cinereous yellow pollinose, the pleura more grayish on the upper half. Mesonotum with a very broad, incomplete shining vitta on each side, the stripe narrowly interrupted at the suture and with a broad, geminate median shining vitta. Pile bright reddish yellow dorsally, almost white on the pleura.

Coxae, trochanters and femora black, the tibiae and tarsi reddish, anterior four tibiae with broad brownish band just beyond the middle, the median half of the posterior pair blackish. Pile whitish. Triangular process on the posterior

femora rather low, with a strong spur apically but without teeth between the spur and the apex of the femora.

Wings cinereous hyaline. Squamae pale yellowish, with yellow fringe. Halteres yellow.

First abdominal segment black, cinereous pollinose. Second segment bright orange with a broad basal fascia and a narrower preapical fascia black, these narrowly connected in the middle and very broadly separated from the lateral margins, the red ground across the middle of the segment connected by cinereous pollen. Third segment with a broad fascia separated from the base by a line and a narrower, medianly broadened black fascia behind the middle, shining black, the median fascia with yellow pollen dorsally and whitish pollen toward the sides. Fourth segment shining black, the sides and broad apex reddish or reddish yellow; and with a broad, reddish fascia extending from behind the middle laterally to the base of the segment in the middle, the anterior border of the fascia very gently convex, the outer ends rounded and not reaching the lateral margins, the fascia with yellow pollen. Pile rich reddish yellow on the dorsum basally, almost white on the sides and apical segments, black on the black portions of the second and third segments. Basal sternites reddish, the apical two black with pale posterior borders.

HOLOTYPE.—Female, Sanyati Valley, Southern Rhodesia, September–October, 1925 (R. H. R. Stevenson).

Merodon multifasciatus, new species

Similar to the preceding species but larger, the oral margin rather strongly produced, the pollinose fasciae golden yellow. Length, 15 mm.

FEMALE.—Head brownish, cinereous pollinose, the pollen more yellowish on the upper part of the occiput and front; front shining brown in the middle and on the upper fourth, black pilose across the ocelli. Pile pale brassy yellowish, much paler on the lower occiput and face. Face strongly receding, the oral margin shining black and rather strongly produced. Antennae reddish, the third segment brown, not much longer than wide, the apex obtusely convex.

Thorax aeneous, cinereous pollinose, the mesonotum with cinereous yellow pollen leaving four incomplete black vittae, the outer ones broad and narrowly interrupted at the suture, the median ones much narrower and separated by a narrow line of pollen. Pile golden yellow above, whitish on the pleura.

Legs colored as in *stevensoni;* plate on hind femora weakly developed, basally with a strong, stout spur beyond which there are three very weak teeth.

Wings cinereous hyaline, the veins yellowish brown. Squamae white, with yellowish fringe. Halteres yellow.

First abdominal segment blackish, with cinereous pollen. Second segment broadly brownish red laterally except posteriorly and with a rather narrowly interrupted reddish fascia extending across the middle and overlaid with cinereous yellow pollen. Third segment shining black with a broad, golden yellow pollinose fascia extending across the middle and slightly expanding toward the sides, the apex of the segment reddish and covered with rich yellow pollen which expands laterally. Fourth segment with a much broader, posteriorly emarginate, golden yellow fascia lying closer to the base of the segment and leaving a transverse, subtriangular brown fascia between it and the broadly golden yellow pollinose posterior margin; ground color beneath the pollinose fasciae reddish; apex of second segment rather broadly cinereous yellow pollinose. Pile very pale yellow basally and on the lateral margins of the basal half, golden yellow on the third and following segments, black on the black fasciae on the third segment, the posterior black fascia on the second and on the base of the fourth.

HOLOTYPE.—Female, Johannesburg, South Africa, March, 1899.

MESEMBRIUS RONDANI

This genus is well represented in Africa, fifteen species being known. In addition to the species included in the following keys, *africanus* Verrall, and *longus* and *sejunctus* Walker have been described. Bezzi suggests that *africanus* is probably the same as *capensis* Macquart. *Helophilus sejunctus* Walker is probably a *Merodon* while *longus* may or may not belong to *Mesembrius*, the description being too inadequate for the formation of any definite opinion. In the key to the males all the species I have been able to recognize from descriptions are included. Since several of the species are known only from one sex it has not been possible to prepare a complete key to the females, so, for the most part, only those actually in the collections before me are included.

TABLE OF SPECIES

I.—MALES

1.—Face wholly black in ground color.....2.
Face yellowish with black median vitta..3.
2.—Scutellum black.....14.
Scutellum brownish yellow.....
.....*nigriceps* Curran.
3.—Posterior tibiae with a long, triangular prolongation at the basal third.....
.....*perforata* Speiser.
Posterior tibiae plain or more or less emarginate on the ventral surface.....4.
4.—Posterior tibiae with a strong triangular projection beyond the middle leaving two concavities on the ventral surface,

one at the middle, the other before the apex.....*tarsata* Bigot.
Posterior tibiae plain or otherwise modified .....5.
5.—Apex of the first segment of the posterior tarsi deeply excavated on the anterior part and bearing a long lobe or spur..... .....*platytarsis* Curran.
First segment of posterior tarsi with the apex normal in shape.....6.
6.—Posterior femora without rather thick, longish black hair at the base, either with very short hair or spines or yellow haired .....10.
Posterior femora with rather thick long black hair basally.....7.
7.—First segment of middle tarsi with yellow hair or pile along the posterior edge...8.
Middle tarsi with only black hair.....9.
8.—Pale hair on middle tarsi not conspicuous.. .....*capensis* Macquart.
Pale hair on middle tarsi long and very conspicuous.....*lagopus* Loew.
9.—Fourth abdominal segment wholly yellowish pilose, with a large patch of appressed pile on either side..... .....*strigilatus* Bezzi.
Fourth segment black haired dorsally, without appressed fine pile.....*minor* Bezzi.
10.—Middle tibiae wholly or partly black haired on basal two-thirds.....11
Middle tibiae yellow pilose, only the narrow apex with black hair anteriorly.... .....*senegalensis* Macquart.
11.—Anterior femora with long golden yellow pile, the middle of the dorsal surface alone with very short, sparse, appressed black hairs.....*simplicipes* Curran.
Anterior femora much more extensively black haired.....12.
12.—Tibiae black except the extreme bases..13.
Tibiae reddish, the posterior pair somewhat darker.....*rex* Curran.
13.—Posterior surface of apical half of anterior femora clothed with extremely dense, golden reddish, curved pile..... .....*chapini*, new species.
Anterior femora without such pile..... .....*ingratus* Loew.
14.—Abdomen with large orange spots laterally. .....*cyanipennis* Bezzi.
Abdomen wholly black.....*morio* Bezzi.

II.—Females (as known)

1.—Face black in ground color.....2.
Face yellowish in ground color, a median vitta black.....4.
2.—Scutellum black.....3.
Scutellum brownish yellow..... .....*nigriceps* Curran.
3.—Abdomen wholly black.....*morio* Bezzi.
Abdomen with orange spots laterally..... .....*cyanipennis* Bezzi.
4.—Front black haired on the whole length except laterally.....5.
Front wholly pale pilose below.....7.
5.—Middle tibiae wholly yellow.....6.
Middle tibiae blackish on apical half..... .....*tarsatus* Bigot.
6.—Anterior four femora black....*rex* Curran.
Anterior four femora reddish..... .....*platytarsis* Curran.
7.—Yellowish fascia on the second abdominal segment entire.....8.
Fascia on the second segment interrupted .....9.
8.—First segment of the middle tarsi with some short yellow hair behind...*lagopus* Loew.
First segment of the middle tarsi wholly black haired.....*minor* Bezzi.
9.—Second segment of the front tarsus wider than long.....11.
Second segment of the front tarsus longer than wide.....10.
10.—The black posterior fascia on the second abdominal segment extends to the lateral margins.....*strigilatus* Bezzi.
The black fascia is broadly separated from the lateral margins..*capensis* Macquart.
11.—Mesonotal vittae obsolete from anterior view.....*simplicipes* Curran.
Mesonotal vittae very conspicuous from anterior view....*senegalensis* Macquart.

Mesembrius cyanipennis Bezzi

Bezzi, 1915, Syrph. Ethiopian Reg., p. 97.

Female, Arebe, Congo (Rodhain); female, Stanleyville (J. Bequaert).

Mesembrius tarsata Bigot

Prionotomyia tarsata Bigot, 1882, Bull. Soc. Ent. France, p. cxxi.

Prionotomyia tarsata Bigot, 1883, Ann. Soc. Ent. France, p. 348.

Prionotomyia tarsata Speiser, 1913, Jahrb. Nassau. Ver. Natur., LXVI, p. 128 (f.).

Mesembrius ingratus Curran, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 60 (not Loew).

In my report on the Diptera of the American Museum Congo Expedition I recorded this species under the name of *ingratus* Loew and I suspect that Bezzi made the same error in his 'Syrphidae of the Ethiopian Region' (1915). In Loew's description no mention is made of the anterior tarsi being reddish, a character which Loew was not likely to overlook. Bezzi calls attention to the reddish front tarsi in his specimens and the character applies to my specimens. Loew's description does fit the specimens fairly well and it may be that both names apply to the same species although Loew rarely omitted characters of importance.

In the C. J. Wainwright collection is a female from Uganda.

Mesembrius lagopus Loew

Helophilus lagopus Loew, Dipt. Fauna Sudafrik., I, p. 314.

Female, River Errer, Abyssinia (G. Kristensen).

Mesembrius capensis Macquart

Helophilus capensis Macquart, Dipt. Exot., II, pt. 2, p. 62 (f.).

One male, Kitende, Uganda, April 11, 1927 (J. Bequaert); female, Lourenco Marques, January–March, 1914 (H. A. Junod).

Mesembrius minor Bezzi

Bezzi, 1915, Syrph. Ethiopian Reg., p. 96.

A single female, Kitende, Uganda, April 11, 1927 (J. Bequaert).

Mesembrius strigilatus Bezzi

Tubifera strigilata Bezzi, 1912, Ann. Mus. Genova, XLV, p. 436.

Male, Lukolela, Congo, January 21, 1915; female, Kabare, Congo, August 31, 1914; two females, Bamania, Congo, July 21, 1924 (J. Bequaert); ten females from Lourenco Marques (H. A. Junod).

Mesembrius senegalensis Macquart

Helophilus senegalensis Macquart, Dipt. Exot., II, part 2, p. 61 (f.).

Two males, Kasorisere, Congo, July 17, 1914; female, Bogore, Congo, July 1914; female, Bamania, Congo, July 21, 1924 (J. Bequaert); female, Bondo, Uele, Congo (Rodhain); male, River Errer, Abyssinia (G. Kristensen); female, Lourenco Marques, January–March, 1914 (H. A. Junod); male, Balla-Balla, Southern Rhodesia, March, 1933 (A. Cuthbertson).

Mesembrius rex Curran

Curran, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 61.

One male from Uganda in C. J. Wainwright collection.

Mesembrius chapini, new species

Legs wholly black; femora modified and with dense pile. Length, 15 mm.

Male.—Head black in ground color; face reddish yellow with a broad median black stripe that is pale pollinose above and on the sides. Frontal triangle shining black, brownish yellow pollinose along the orbits, the pile black. Vertical triangle long, yellowish brown pollinose in front of the ocelli, black haired. Occiput cinereous pollinose below, yellowish brown above; pile yellowish, becoming deeper yellow above. Cheeks and lower part of the face cinereous pollinose, the upper part with yellowish pollen. Antennal base rather strong, the face strongly receding above and with a low median tubercle. Antennae blackish, the arista brownish red.

Mesonotum subopaque black, with a pair of moderately broad brownish yellow pollinose vittae and with the sides moderately pollinose; pleura with cinereous pollen. Pile bright yellow, black on the mesonotum behind the suture and on the scutellum, the latter with the border yellow pilose and of a translucent reddish yellow color.

Legs black, only the knees very narrowly reddish yellow. Anterior femora much broadened, in the middle twice as broad as high, concave below near the base, posteroventrally with a broad, dense brush of golden reddish pile on the apical half, bordered above with black, the apical half of the brush longer and curled under, the hair otherwise black; pollen moderately thick, brown. Anterior tibiae with long black hair posteriorly and posteroventrally; anterior tarsi broadened and with rather long black pile behind. Middle femora, slightly broadened, with rather dense black pile that forms a dense apical brush posteriorly, the posterior surface otherwise clothed with bright yellow pile; middle tibiae strongly arcuate and with abundant, crinkly black pile, their tarsi simple. Posterior femora rather strongly arcuate, yellow pilose on the basal three-fourths, with a moderately strong preapical swelling below, the under surface bare on the apical half, at the middle with a short, stout fascicular group of hairs and basally with short, stout bristly setulae; on the apical fourth of the posteroventral surface with a pair of approximate, short, stout bristles; posterior tibiae laterally compressed and broadened, arcuate, and irregular in outline from lateral view, above with long, dense black pile that becomes shorter and thinner apically, the median third below with shorter, straighter, dense black pile; basally on the posterior surface with a large, slightly oblique concavity marked off by a border of very dense, moderately short, pile. Posterior tarsi simple, with black nodose hairs basally on the ventral surface. The posterior femora bear a group of black bristles posteriorly on the ventral swelling.

Wings grayish hyaline. Squamae and halteres yellow.

First abdominal segment black, cinereous pollinose in the middle. Second segment with a pair of large, subtriangular pale orange spots, their inner ends rather broadly rounded, their

outer ends broadly touching the base of the segment laterally and extending back to the apical fifth, the very broad posterior border of the segment brownish red and covered with reddish brown pollen; base and middle of the segment opaque black, the pile yellow on the basal half and on the yellow spots and sides. The third segment is stained but appears to have a broad basal orange band that expands strongly toward the sides, in the middle with a transverse, oval, opaque black spot that is slightly raised, behind which the ground color is castaneous, the median half with grayish pollen in front and brown pollen behind. Fourth segment with the broad base very strongly expanding laterally, reddish in ground color, the sides and apex also pale, the basal half very thickly cinereous yellow pollinose, the apical half brownish, the pale pollen enclosing a transverse, opaque brownish black spot posteriorly. Pile on third segment black except on the pale fascia and sides, on the fourth segment black on the posterior two-thirds of the median half. The sides of the abdomen are wholly reddish yellow and with longer pale pile than that on the dorsum. Genitalia shining black, the base and appendages reddish, the pile mostly yellow. Venter reddish yellow, somewhat darker in the middle.

HOLOTYPE.—Male, Lukolela, Belgian Congo, January 1, 1931 (J. P. Chapin).

LEJOPS RONDANI

This genus has two representatives in Africa, one of them with the epistoma slightly less produced than in *lineata* Fabricius, the other with a true snout as in *Rhingia*.

TABLE OF SPECIES

1.—Snout as in Rhingia; abdomen with orange spots ..... *nasutus* Curran.
2.—Face gradually produced from below the antennae to the oral margin; abdominal spots grayish, the ground color only obscurely reddish beneath them ..... *katonae* Bezzi.

Lejops nasutus Curran

CURRAN, 1929, Amer. Mus. Novitates, No. 340, p. 12.

I have seen only the type male from Masisi, Congo, December 30, 1914 (J. Bequaert).

Lejops katonae Bezzi

Eurinomyia katonae BEZZI, 1921, Broteria, Ser. Zool., XVIII, fasc. 3, p. 15.

Lejops africanum CURRAN, 1927, Ann. Mag. Nat. Hist., XX, p. 351.

Male and two females, Kitende, Uganda, April 11, 1927.